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Apr 6, 1999

DERWENT-ACC-NO: 1999-253943
DERWENT-WEEK: 199921
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TITLE: High yield preparation of 9-cis,11-trans octadecadienoic acid used in foods
and pharmaceuticals

INVENTOR: SEIDEL, M C

PATENT-ASSIGNEE:

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CODE
SEIDI

PRIORITY-DATA: 1997US-0800567 (February 18, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5892074 A	April 6, 1999	N/A	013	C07C051/347

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 5892074A	February 18, 1997	1997US-0800567	N/A

INT-CL (IPC): C07C 51/347

ABSTRACTED-PUB-NO: US 5892074A
BASIC-ABSTRACT:

NOVELTY - High yield preparation of 9-cis,11-trans octadecadienoic acid from rincinoic acid esters is carried out at room temperature using sulfonyl chlorides.

DETAILED DESCRIPTION - Preparation of 9-cis, 11-trans octadecadienoic acid (I) comprises: (a) reacting an ester of rincinoic acid (III) with a tosyl or mesyl chloride; and (b) reacting the resulting product with diazabicyclo-undecene (DAU) or diazabicyclononene (DAN) to give (I) having purity greater than 50%, provided that when DAN is used the purity of the product is greater than 70%. An INDEPENDENT CLAIM is included for the preparation of 9-cis,11-trans octadienoic acid comprising: reacting toluene sulfonyl, methane sulfonyl or benzene sulfonyl chloride with rincinoic acid or its ester at room temperature in a first solvent; and reacting the resulting intermediate ester with DAN or DAU at room temperature in a second solvent comprising acetonitrile, toluene, tetrahydrofuran and/or dimethylsulfoxide to form (I) in high yield.

USE - Conjugated linoleic acids and their non-toxic derivatives, such as the potassium and sodium salts, are useful as additives in combination with conventional animal feeds or human foods. Conjugated linoleic acid results in leaner animal mass.

ADVANTAGE - The process is conducted at room temperature and provides (I) in high yields. The process gives (I) in higher purity than in prior art processes.

DESCRIPTION OF DRAWING(S) - The figure shows the gas chromatography print out of

(I) produced via the present invention.

CHOSEN-DRAWING: Dwg.1/5

TITLE-TERMS: HIGH YIELD PREPARATION CIS TRANS ACID FOOD PHARMACEUTICAL

DERWENT-CLASS: B05 C03 D13

CPI-CODES: B04-B01B; C04-B01B; C14-S12; D03-G; D03-H01T;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

H7 H724 J0 J011 J1 J171 M225 M231 M262 M281

M320 M720 M800 M904 M905 N209 N222 N241 N242 N262

N265 N312 N341 N362 N382 N512 Q220

Specific Compounds

A041KK A041KP

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-074235